

I claim:

1. A hydraulic cement coating for application to above ground structures comprising:

a dry mix including in parts by weight of hydraulic cement 100, silica sand 114 - 140, slag 7 - 11, microcrystalline sand 28 - 46, fumed silica 2 - 5, silica powder 4 - 8, fly ash 5 - 9, microsilica 9 - 12, mineral fiber 52 - 88, silica sand cement 2 - 5 and a high reactivity metakaolin 1 - 3;

a binder solution; and

a quantity of water, said dry mix and said binder solution being combined with said quantity of water.

2. The hydraulic cement coating for application to above ground structures of claim 1, wherein:

said hydraulic cement having a chemical formula of $\text{Ca}_3\text{Al}_2\text{O}_6\text{Fe}_2\text{O}_3\text{CaO}$ and being a type I hydraulic cement.

3. The hydraulic cement coating for application to above ground structures of claim 1, wherein:

said binder solution being a carboxylated acrylic copolymer, said quantity of said binder solution being 50 - 61 parts by weight.

4. The hydraulic cement coating for application to above ground structures of claim 1, wherein:

said binder solution being a redispersible polymer binder, 10 - 14 parts by weight of said redispersible polymer binder being combined with between 44 - 54 parts by weight.

5. The hydraulic cement coating for application to above ground structures of claim 1, wherein:

said quantity of water being 88 - 112 parts by weight.

6. The hydraulic cement coating for application to above ground structures of claim 1, wherein:

said fly ash having a mean diameter of 3 microns.

7. A hydraulic cement coating for application to below ground structures comprising:

a dry mix including in parts by weight of hydraulic cement 100, flint silica sand 95 - 117, microcrystalline sand 24 - 44, natural crystalline silica 9 - 13, fumed silica 2 - 4, silica powder 4 - 6, fly ash 1 - 3, a high reactivity metakaolin 3 - 7, microsilica 5 - 9, ceramic fiber 9 - 13 and silica sand cement 2 - 4;

a binder solution; and

a quantity of water, said dry mix and said binder solution being combined with said quantity of water.

8. The hydraulic cement coating for application to below ground structures of claim 7, wherein:

said hydraulic cement having a chemical formula of Al_2O_3 CaO SiO_2 Fe_2O_3 Na_2O .

9. The hydraulic cement coating for application to below ground structures of claim 7, wherein:

said binder solution being a carboxylated acrylic copolymer, said quantity of binder solution being 39 - 47 parts by weight.

10. The hydraulic cement coating for application to below ground structures of claim 7, wherein:

said binder solution being a redispersible polymer binder, 7.8 - 11.4 parts by weight of said redispersible polymer binder being combined with between 34 - 42 parts by weight of water.

11. The hydraulic cement coating for application to below ground structures of claim 7, wherein:

said quantity of water being 64 - 88 parts by weight.

12. The hydraulic cement coating for application to below ground structures of claim 7, wherein:

said fly ash having a mean diameter of 3 microns.

13. A hydraulic cement coating for application to above ground structures comprising:

a dry mix including in parts by weight a type I hydraulic cement having a chemical formula of $\text{Ca}_3\text{Al}_2\text{O}_6\text{Fe}_2\text{O}_3\text{CaO}$ 100, silica sand 114 - 140, slag 7 - 11, microcrystalline sand 28 - 46, fumed silica 2 - 5, silica powder 4 - 8, fly ash 5 - 9, microsilica 9 - 12, mineral fiber 52 - 88, silica sand cement 2 - 5 and a high reactivity metakaolin 1 - 3;

a binder solution; and

a quantity of water being between 88 - 112 parts by weight, said dry mix and said binder solution being combined with said quantity of water.

14. The hydraulic cement coating for application to above ground structures of claim 13, wherein:

said binder solution being a carboxylated acrylic copolymer, said quantity of said binder solution being 50 - 61 parts by weight.

15. The hydraulic cement coating for application to above ground structures of claim 13, wherein:

said binder solution being a redispersible polymer binder, 10 - 14 parts by weight of said redispersible polymer binder being combined with between 44 - 54 parts by weight.

16. The hydraulic cement coating for application to above ground structures of claim 13, wherein:

said fly ash having a mean diameter of 3 microns.